

KOROL'KOV, I.I., inzh.

Advanced techniques for manufacturing boring jumpers. Energetik
10 no.12:20-21 D '62. (MIRA 16:1)
(Drilling and boring machinery)

KOROL'KOV, I.I., inzh.

Elimination of welding defects in high-pressure preheaters.

Energetik 11 no.2:8 F 61

(MIRA 16:3)

(Steam turbines—Welding)

KOROL'KOV, I.I., inzh.

Redesigning of the piston group of steam-operated mazut donkey
pumps. Energetik 11 no.5:21-22 My '63. (MIRA 16:7)
(Pumping machinery) (Boilers)

KOROL'KOV, I.I., inzh.

Overhead plug welding in boiler cyclone combustion chambers.
Svar. proizv. no.1:35-36 Ja '64. (MIRA 17:1)

1. TSentral'noye proizvodstvennoye remontnoye predpriyatiye
Leningradskogo rayonnogo upravleniya energeticheskogo
khozyaystva.

LIKHONOS, Ye.F.; KOROL'KOV, I.I.

Simplified methodology for determining the amount of dextrans in hydrolyzates. *Gidroliz. i lesokhim.prom.* 17 no.2:18-19 '64.

(MIRA 17:4)

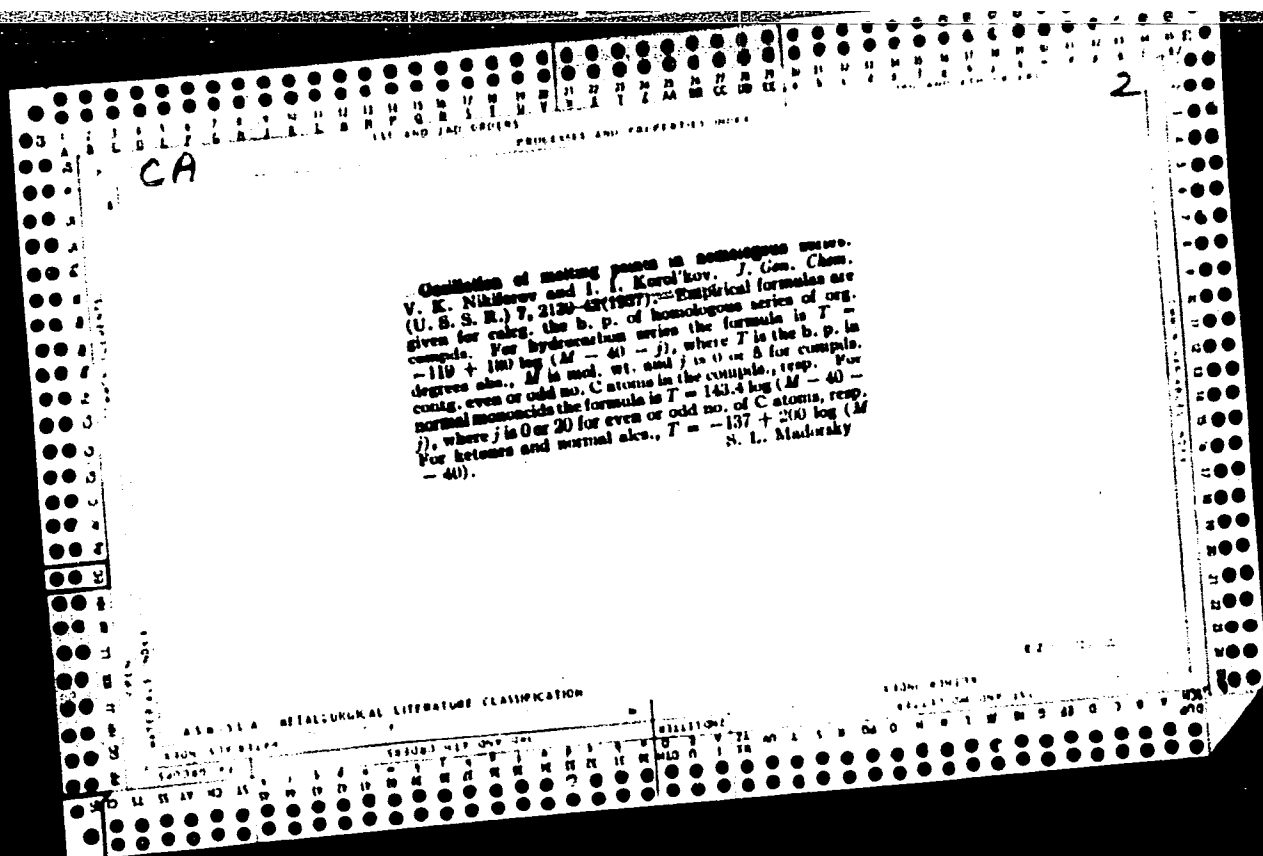
1. Gosudarstvennyy nauchno-issledovatel'skiy institut gidroliznoy i sul'fitno-spirovoy promyshlennosti.

KOROL'KOV, I.I.

Mechanized peat unloading from hoppers. Biul. tekhn.-ekon. inform.
Gos. nauch.-issl. inst. nauch. i tekhn. inform. 17 no.4:64-66
Ap '64. (MIRA 17:6)

KOROL'KOV, I.I., inzh.

Prevention of leakage from the welded joints of high pressure
heaters. Energetik 11 no. 12:11-13 D '63. (MIRA 17:5)



KOROL' KOV, I I

USSR.

Transition of calcium sulfate hydrates. I. I. Korol'kov
and A. V. Krut'kov. J. Appl. Chem. (U.S.S.R.), 48, 48, 48, 48,
40 (1951) (Engl. translation).—See C.A. 48, 6301g.
H. L. H.

KOROL'KOV, I. I.

Journal of The American Ceramic
Society June 1, 1954
Cements, Limer and Plasters

(2)

Transformations of aqueous modifications of calcium sulfate.
I. I. KOROL'KOV AND A. V. KURKOVA. *Zhur. Priklad. Khim.*,
26:101-107, 1953. $\text{CaSO}_4 \cdot \frac{1}{2}\text{H}_2\text{O}$ with and without the ad-
mixture of $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$ was kept in water at 20° to 105°C. for
periods of up to 300 min., followed by determination of water of
crystallization. The hemihydrate is stable in water at tempera-
tures above 90°. The dihydrate changes into the hemihydrate
at 103° to 105°. The hemihydrate becomes unstable in the
presence of crystals of the dihydrate, dissolving and recrystalliz-
ing on the surface of the dihydrate. The rate of transformation
of the hemihydrate into the dihydrate is determined by the rate of
crystallization of the latter and depends on the solubility dif-
ferences of the two modifications and on the extent of the sur-
face of the dihydrate crystals. Phosphate ions and glucose de-
crease the rate of crystallization of the dihydrate and lower the
temperature level for the formation of the dihydrate. At tem-
peratures above 90°, it is difficult to obtain complete recrystalliza-
tion of the hemihydrate. H. Z. K.

KOROL'KOV, I. I.

USSR.

Kinetics of sugar formation from hydrolysis of wood cellulose by the percolation method. I. I. Korol'kov. *J. Appl. Chem. U.S.S.R.* 27, 99-101 (1954) (Engl. translation).—*See C.A.* 48, 7204f.

H. L. H.

KOROL'KOV, I. I.

(1)
Kinetics of sugar formation from hydrolysis of wood cellulose by the percolation method. I. I. Korol'kov. *Zhur. Priklad. Khim.* 27, 112-14(1954).—The kinetics of sugar formation by acid hydrolysis of wood cellulose are analyzed, and the following equation expressing the rate of sugar formation Z is obtained: $Z = A(1 - e^{-K_1 T})(1 - e^{-K_2 T}/K_1 T)$, where A is the monosaccharide equiv. of cellulose and K_1 and K_2 are rate consts. of cellulose hydrolysis and sugar decompn., resp.

I. Bencowitz
Acetylation reactivity of cellulose containing salts. C. J. Malm, K. T. Barkey, D. C. May, and P. I. Abell (Eastman Kodak Co., Rochester, N.Y.). *Ind. Eng. Chem.* 46, 557-61(1954); cf. *C.A.* 47, 2977e.—Conditioned cellulose pulp, activated in AcOH at 23°, followed by treatment with 1.8% H_2SO_4 (by wt. of cellulose) in AcOH, was acetylated adiabatically, starting temp. 20°, with 10 parts Ac_2O , 20 parts AcOH, and 0.072 mole H_2SO_4 /100 g. cellulose. The time-temp. curve and the time required to obtain a clear soln. showed the effects of retained salts (1.2-8.8 millimoles/100 g. pulp) in salt-treated pulp. Na, Ca, and Mg bicarbonates and sulfates increased both the min. activation time necessary for uniform breakdown and the min. acetylation time. Acetylation reactivity of salt-treated pulp correlated with soly. of salts in AcOH (0.003, 0.0008, 0.0004% for Na_2SO_4 , $CaSO_4 \cdot 2H_2O$, and $MgSO_4 \cdot 7H_2O$, resp.).
A. J. Stinton

KOROLKOV, I. I.

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✓ Alcoholysis of cellulose. V. I. Sharkov, I. I. Korol'kov,
and A. V. Krupnova. *J. Appl. Chem. U.S.S.R.* 27, 301-0
(1954) (Engl. translation).—See C.A. 49, 7800b.

H. L. H.

2 mg

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P.E.

Korol'kov, I. I.

(3)

Alcoholysis of cellulose. V. I. Sharkov, I. I. Korol'kov
and A. V. Krummova, Zhur. Priklad. Khim. 27, 310-7
(1954).—Heating cotton-cellulose specimens in autoclave
with aq. solns. of H_2SO_4 at 160° with either EtOH or MeOH
results in alcoholysis. The reaction rate (shown graphi-
cally) follows a 1st-order equation. The rate of cleavage
of cellulose increases in such solns. with an increase of ROH
concn. in the aq. ROH- H_2SO_4 medium. Alcoholysis of
cellulose is accelerated by addn. of nonpolar or weakly
polar solvents (toluene, C_6H_6 , CCl_4). The nature of the
cleavage is analogous to that observed in hydrolysis of
cellulose. The adsorbed aq. layer on the surface of the
cellulose fibers under the above conditions does not appear
to dil. the H_2SO_4 content of the reaction mixt. The rate
of alcoholysis of cellulose rises with an increase of its avail-
able surface (such as after mercerization). Alcoholysis
performed in the presence of Me_2CO yields a material that
is sol. in cold H_2O but insol. in EtOH and appears to be a
cellulos. dimethylidene deriv. G. M. Kosolapoff

9-20-54

KOROL'KOV, I.I.; SHARKOV, V.I.; GARMANOVA, Ye.N.; KRUPHOVA, A.V.

Effect of the hydromodulus on the rate of hydrolysis of wood cellulose.
Gidroliz. i lesokhim. prom. 8 no.6:14-15 '55. (MLBA 9:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidroliznoy i sul'
fitno-spirtovoy promyshlennosti.
(Hydrolysis) (Cellulose)

KOROIKOV, I. I.

MT The effect of molecular interaction on the stability of glucoside links in the macromolecule of cellulose toward the action of hydrolyzing agents. I. I. Koroikov, V. P. Levanova, and V. I. Sharkov. *Colloid J. (U.S.S.R.)* 17, 337-9 (1955) (Engl. translation).--*See C.A.* 50, 2104i.
B. M. R.

(2)

Korol'kov, I. I.

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The effect of molecular interaction on the stability of glucoside links in the macromolecule of cellulose toward the action of hydrolyzing agents. I. I. Korol'kov, V. P. Levanova, and V. I. Sharikov (Inst. of Chemistry and Applied Biology, Leningrad). *Kolloid Zhur.* 17, 853-6 (1955). Hydrocellulose (I) from viscose was dissolved in 65% H_2SO_4 in 1 hr. and then dild. with 25% H_2SO_4 to achieve a concn. of 58% H_2SO_4 . If the amt. of I used was such that the final concn. of I was 0.25, 10, 20, or 30%, the const. K of hydrolysis at 35° was 0.107, 0.057, 0.044, and 0.033 hr^{-1} , resp. However, when the more concd. solns. of I were dild. with 58% H_2SO_4 to obtain 0.25% solns., K was still smaller than the K of the initially dil. soln. Thus, the differences in the rate of hydrolysis are due to the fact that the attack of 65% H_2SO_4 on I is more severe the greater the ratio of 65% H_2SO_4 to I, and that I, when dissolved in 65% H_2SO_4 , is more rapidly hydrolyzed by 58% H_2SO_4 . Thus the theory of Konkin *et al.* (C.A. 48, 13211e), that more concd. solns. of I are hydrolyzed more slowly because of forces between the chains of I, is untenable. — J. J. Bikerman

(2)

Neutralization of wood hydrolyzates containing sulfonic acid. I. I. Korol'kov, Z. A. Tyagunova, and N. A. Nazarov. U.S.S.R. 104,439, Dec. 25, 1966. The neutralization is done with milk of lime. To prevent deposition of gypsum in the columns, freshly pptd. crystals of $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$ are added to the hydrolyzate. The crystals are obtained by adding to the milk of lime a soln. of $(\text{NH}_4)_2\text{SO}_4$ or a mixt. of $(\text{NH}_4)_2\text{SO}_4$ and Na_2SO_4 . M. Hesch.

SHARKOV, V.I.; KOROL'KOV, I.I.; GARMANOVA, Ye.N.

Increasing the sugar yield from wood hydrolysis by means of
preliminary grinding of the wood. Gidreliz. i lesokhim.prom.
9 no.1:6-8 '56.
(MIRA 9:6)

1.Vsesoyuznyy nauchno-issledovatel'skiy institut gidreliznoy i
sulfitno-spirovoy promyshlennosti.
(Hydrolysis)

KOROL'KOV, I.I.; TYAGUNOVA, Z.A.

Neutralization of hydrolysates with controlled crystallization
of gypsum. Gidrolis. i lesokhim.prom. 9 no.5:3-5 '56.
(MLRA 9:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidroliznoy i
sul'fitno-spirtovoy promyshlennosti.
(Hydrolysis) (Gypsum)

KOROL'KOV, I.I.; TYAGUNOVA, Z.A.

Effect of colloids on the crystallization of gypsum. *Gidroliz.*
i lesokhim. prom. 9 no.8:8-9 '56. (MLRA 10:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidroliznoy
i sul'fitno-spirovoy promyshlennosti.
(Colloids) (Crystallization) (Gypsum)

KOROL'KOV, I.I.; TYAGUNOVA, Z.A.; LIKHOMOS, Ye.F.

Rate of crystallization of *gypsum* during the continuous
neutralization of hydrolysates. *Gidroliz.i lesokhim.prom.*
12 no.6:4-6 '59. (MIRA 13:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidroliznoy i
sul'fitnospirtovoy promyshlennosti.
(Gypsum) (Hydrolysis)

KOROL'KOV, I. I.

The catalytic activity of very dilute solutions of sulfuric acid in their action on glucose. I. I. Korol'kov. *Zhur. Priklad. Khim.* 29, 239-242 (1956). In the equation for the rate of catalytic activity $K = K_0 + K_H[H^+] + K_{OH}[OH^-]$, K_H is detd. from the rate of decompn. of glucose in NH_4SO_4 at 100° ; $K_H = 4.8 \times 10^4/hr$. The value of K_{OH} detd. at 100° from the decompn. of glucose in the presence of solid Na_2CO_3 is 650. At pH ~ 3 the effect of $[OH^-]$ is negligible and in the range of pH 4 to 5 there is a min. decompn. rate, whereas at pH ~ 7 the reaction rate is affected primarily by $[OH^-]$ and the rate is 100 times as fast as at the min. K_0 , the rate const. of unionized H_2O , is detd. from the reaction at pH ~ 3 from the equation $K_0 = K - K_H[H^+]$; the values of K_0 at 180 and 160° are 3.58×10^{-2} and 6.12×10^{-3} . I. B.

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A study of structure of cellulose by the method of etha-
nolysis. I. I. Korol'kov, V. I. Shatkov, and E. N. Garmann-
ova. ~~Dokl. Akad. Nauk S.S.S.R.~~ 109, 1110 (1957).
Amorphous cellulose (I) obtained by ball-grinding of cotton
cellulose was heated in a Cu autoclave with abs. EtOH
contg. 10% H₂SO₄, 20-400 min. at 160°. The washed and
dried products were used for detg. the percentage of dis-
solved cellulose. Similar examn. of other celluloses showed
that while cotton cellulose contains 7% I, sulfite cellulose
contains 16, cellophane 42, and viscose silk 45%. The d.
of I was estd. at 1.488, i.e. decidedly lower than that calcd.
by Heringans (*Contributions to the Physics of Cellulose Fibers*,
1946 (C.A. 40, 6269)).
G. M. Kosolapoff

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KOROL'KOV, I.I.; SHARKOV, V.I.; KRUPNOVA, A.V.

Causes for retarded reaction in the hydrolysis of vegetable cell polysaccharides at a low hydromodulus. Gidroliz. i lesokhim.prom. 10 no.1:8-10 '57. (MLRA 10:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidroliznoy i sul'fitno-spirovoy promyshlennosti.
(Polysaccharides) (Hydrolysis)

KOROL'KOV, I.I.; SHARKOV V.I.; GARMANOVA, Ye.N.

Alcoholysis technique for investigating the structure of
cellulose. Zhur.prikl.khim. 30 no.4:586-598 Ap '57. (MIRA 10:7)
(Cellulose) (Alcoholysis)

SHARKOV, V.I.; KOROL'KOV, I.I.; GARMANOVA, Ye.N.

The "limit" polymerization degree of cellulose. Zhur. prikl. khim. 30
no.11:1668-1672 N '57. (MIRA 11:2)
(Cellulose) (Polymerization)

KOROL'KOV, I.I.; KRUPNOVA, A.V.; GARMANOVA, Ye.N.; IVLIYEVA, Ye.A.

Effect of the diffusion of sugar on its yield in percolation
hydrolysis of wood. Gidrolis. i lesokhim. prom. 11 no.2:1-5
'58.

(MIRA 11:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidroliznoy i
sul'fitno-spirovoy promyshlennosti.

(Sugar) (Hydrolysis)

KOBOL'KOV, I.I.; TYAGUNOVA, Z.A.; IVLIYEVA, Ye.A.; RYABOVICH, V.I.;
PAPASHNIKOV, L.M.

Kinetic method of evaluating systems of percolation hydrolysis of
sawdust. Gidroliz. i lesokhim. prem. 11 no.6:3-6 '58.

(MIRA 11:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidroliznoy i
sul'fitno-spirtovoy promyshlennosti.
(Hydrolysis)

KOROL'KOV, I.I.; KRISTAN, E.Sh.; PAPASHNIKOV, L.M.; PARAMONOVA, G.D.;
EFROS, I.E.

Hydrolysis with co-ordinated reaction parameters and the return
of the tail hydrolysate to charge. Gidroliz. i lesokhim.prom.
11 no.7:20-24 '58. (MIRA 11:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidroliznoy i
sul'fitno-spirtovoy promyshlennosti (for all except Efros). 2. Sazhzhskiy
gidroliznyy zavod (for Efros)
(Hydrolysis)

SHARKOV, V.I.; KOROL'KOV, I.I.; KRUPNOVA, A.V.

Transforming woodpulp and wood into a readily hydrolyzable state
by the action of γ -rays. *Gidroliz. i lesokhim.prom.* 11 no.8:34-
' 58. (MIRA 11:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidroliznoy i
sul'fitno-spirovoy promyshlennosti.
(Woodpulp) (Gamma rays--Industrial applications)
(Hydrolysis)

KOROL'KOV, I.I.; SHARKOV, V.I.; KRUPNOVA, A.V.

Study of the "recrystallization" phenomenon in cellulose. Zhur.
prikl. khim. 31 no.10:1560-1565 O '58. (MIRA 12:1)
(Cellulose) (Crystallization)

KOROL'KOV, I.I.; TYAGUNOVA, Z.A.; RYAZANTSEV, N.V.; PETI, P.K.;
MEDVEDEV, S.P.; LYUKHANOV, O.P.

Continuous neutralisation of hydrolyzates. Gidroliz.1
lesokhim.prom. 13 no.1:17-20 '60. (MIRA 13:5)

1. Nauchno-issledovatel'skiy institut gidroliznoy i sul'fitno-spirovoy promyshlennosti (for Korol'kov, Tyagunova, Ryasantsev, Peti).
2. Tavdinskiy gidroliznyy zavod (for Medvedev).
3. Krasnodarskiy gidroliznyy zavod (for Lyukhanov).
(Krasnodar--Wood-using industries--Equipment and supplies)
(Hydrolysis)

KOROL'KOV, I.I.; KAL'MANOVICH, S.L.; VITEL'S, V.L.; EFROS, I.N.

Introducing automatic control for the stabilization of hydrolysis processes. Gidroliz.i lesokhim.prom. 13 no.4: 11-14 '60. (MIRA 13:7)

1. Nauchno-issledovatel'skiy institut gidroliznoy i sul'fitno-spirovoy promyshlennosti (for Kal'manovich). 2. Segezhskiy gidroliznyy zavod (for Efros).
(Segezha--Hydrolysis) (Automatic control)

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SOV/80-33-2-30/52

AUTHORS: Korol'kov, I. I., Paramonova, G. D., Huo Yüan-Lu

TITLE: Comparative Characteristics of the Hydrolysis Rate of Polysaccharides Found in Various Kinds of Vegetable Raw Materials

PERIODICAL: Zhurnal prikladnoy khimii, 1960, Vol 33, Nr 2, pp 431-438 (USSR)

ABSTRACT: The hydrolysis of easily hydrolyzed polysaccharides, found in hemicelluloses of various vegetable materials, consists of two stages, namely, the dissolution to dextrins, and the hydrolysis of dextrins to the monosaccharide stage. The hydrolysis of various materials (cotton husk, bagasse, corncobs, fir wood, birch wood, etc.) was conducted at 100° in the presence of 2-4% sulfuric acid solution. The hydrolyzate was filtered and subjected to additional hydrolysis. The difference between the amounts of the reducing substances determined before and after the second hydrolysis was considered as the amount of dextrins. The hydrolysis

Card 1/3

Comparative Characteristics of the
Hydrolysis Rate of Polysaccharides
Found in Various Kinds of Vegetable
Raw Materials

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rate of the cellulose was determined in the material after the elimination of the easily hydrolyzed polysaccharides. The reaction was conducted at 180° C in the presence of 0.5% sulfuric acid solution. It was found that the hydrolysis rate of the easily hydrolyzed polysaccharides was in direct proportion to the acid concentration, and that it was hundreds or thousands of times larger than the hydrolysis rate of cellulose. Corn cob polysaccharides dissolved much more quickly than all other; then cotton husk, fir wood, bagasse, and rust polysaccharides. The slowest to dissolve were the sunflower seed husk, birch- and beech-wood polysaccharides. The hydrolysis rate constants of the individual fractions were determined by means of the formula:

$$K_F = \frac{2.3}{t} \lg \frac{a}{a-x}$$

Card 2/3

Comparative Characteristics of the
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where K_F is the solubility rate constant of the 10% polysaccharide fractions of the hemicelluloses; t is the solution time of this fraction; a is the amount of undissolved polysaccharides remaining after the dissolution of the preceding fraction; and x is the 10% fraction. The various fractions underwent hydrolysis at different rates. For example, the most easily hydrolyzed fraction of corncob polysaccharides was hydrolyzed 10 times faster than its least hydrolyzable fraction. The only exception was beechwood, all of whose fractions had identical K_F values. A. A. Anisimova took part in the experimental part of this study. There are 4 figures; 5 tables; and 4 Soviet references.

SUBMITTED:

Card 3/3

KOROL'KOV, I.I.; PARAMONOVA, G.D.

Content of the easily hydrolyzable fraction of cellulose in wood-
pulp. Zhur. prikl. khim. 33 no.12:2739-2743 D '60. (MIRA 14:1)
(Cellulose)

KOROL'KOV, I.I.; KRESTAN, E.Sh.; BATIKOV, L.S.; ZOTAGINA, S.A.

Relation between the value of the hydrolysis module for the
hydrolyzate yield on the plant production capacity and costs.
Gidrolis. i lesokhim. prom. 14 no. 1:19-22 '61. (MIRA 14:1)

1. Nauchno-issledovatel'skiy institut gidroliznoy i sul'fitno-
spirtovoy promyshlennosti (for Korol'kov, Krestan). 2. Lobvin-
skiy gidroliznyy zavod (for Batikov, Zotagina).
(Wood—Chemistry) (Hydrolysis)

KOROL'KOV, I.I.; ZAYTSEV, B.M. [deceased]; SHARKOV, V.I.; VAYNER, A.S.; EFROS, I.N.; EFROS, V.A.; BUBNOVA, N.I.

Percolation hydrolysis with a variable flow of liquid. Gidroliz.
i lesokhim.prom. 14 no.2:10-14 '61. (MIRA 14:3)

1. Nauchno-issledovatel'skiy institut gidroliznoy i sul'fitno-spirovoy promyshlennosti (for Korol'kov, Zaytsev, Sharkov, Vayner).
2. Segezhskiy gidroliznyy zavod (for I. Efros, V. Efros, Bubnova).
(Hydrolysis) (Percolation) (Wood-chemistry)

KOROL'KOV, I.I.; TYAGUNOVA, Z.A.; LIKHONOS, Ye.F.

Rate of crystallization of plaster of Paris from supersaturated solutions at various temperatures. Zhur. prikl. khim. 34 no.1: 120-125 Ja '61. (MIRA 14:1)

(Plaster of Paris)

KOROL'KOV, I.I.; TYAGUNOVA, Z.A.; POLIVANNYY, V.I., nauchn. red.;
PETRENKO, V.M., tekhn. red.

[Continuous neutralization of hydrolysates] Nepreryvnaia
neitralizatsiia gidrolizatorov. Moskva, TSentr. in-t
tekhn. informatsii i ekonom. issl. po lesnoi, bumazhnoi i
derevoobrabatyvaiushchei promyshl., 1963. 31 p.

(MIRA 16:9)

(Hydrolysis) (Lime)

KOROL'KOV, I.I.

Varying hydrolysis rate of easily hydrolyzable polysaccharides
from hemicelluloses of vegetable tissue. Zhur. prikl. khim. 34
no.5:1139-1142 My '61. (MIRA 16:8)

(Hydrolysis) (Polysaccharides)

KOROL'KOV, I.I.; LIKHOVID, R.D.

Simplified method for determining sparingly hydrolyzable
polysaccharides in lignin. *Gidroliz. i lesokhim. prom.* 15
no.7:10-11 '62. (MIRA 16:8)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut gidroliznoy
i sul'fitnospirtovoy promyshlennosti.
(Lignin) (Hydrolysis)

KOROL'KOV, I.I.; KRESTAN, E.Sh.; UL'YANOVSKAYA, R.I.

Introducing a hydrolysis method with alternate flow. Gidroliz.
i lesokhim. prom. 15 no.7:12-14 '62. (MIRA 16:8)

(Hydrolysis)

KOROL'KOV, I.I.

Analyzing the ways for the development of the technology of
continuous hydrolysis methods. Gidroliz. i lesokhim.prom. 15
no.1:3-4 '62. (MIRA 18:3)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut gidroliznoy
i sul'fitno-spirovoy promyshlennosti, Leningrad.

KOROL'KOV, I.I.

Methods and conditions of the percolation hydrolysis of wood
wastes. Sbor.trud.NIIGS 12:7-39 '64. (MIRA 18:3)

KOROL'KOV, I.I.; LIKHONOS, Ye.F.; UL'YANOVSKAYA, R.I.; LIKHOVID, R.D.

Investigating the characteristics of the hydrolysis of easily
hydrolyzed polysaccharides. Gidroliz. i lesokhim. prom. 17 no.7:
4-7 '64. (MIRA 17:11)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut gidroliznoy
i sul'fitno-spirtovoy promyshlennosti, Leningrad.

KRESTAN, E.Sh.; KOROL'KOV, I.I.

Investigating the process of sugar extraction in percolation
hydrolysis. Gidroliz. i lesokhim.prom. 18 no.1:3-5 '65.

(MIRA 18:3)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut glavoliznoy
i sul'fitno-spirovoy promyshlennosti.

LIKHONOS, Ye.F.; KOROL'KOV, I.I.

Determination of the quantity of soluble polysaccharides.
in hydrolyzates. Zhur. prikl. khim. 36 no.5:1152-1154
My '63. (MIRA 16:8)

(Polysaccharides) (Hydrolysis)

KOROL'KOV, I.I.; STRIZHEVSKAYA, I.S.; LIKHOVID, R.D.; PARAMONOVA, G.D.;
ZYBIN, S.Ye.; BATIKOV, L.S.; DOLGOKHVESTOV, I.A.

Experiments in the production of hydrolysates for growing yeast
at the Ivdel' Hydrolysis Plant. Gidroliz. i lesokhim. prom.
16 no.5:3-7 '63. (MIRA 17:2)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut gidroliznoy
i sul'fitno-spirtovoy promyshlennosti (for Korol'kov,
Strizhevskaya, Likhovid, Paramonova). 2. Ivdel'skiy gidroliznyy
zavod (for Zybin, Batikov, Dolgokhvestov).

KOROL'KOV, I.I., inzh.

Mechanization of the hoisting and placement operations of ferroboreon
guard plates in the spirals of boiler flue gas pumps. Energetik
12 no.2:15-16 F '64. (MIRA 17:4)

KOROL'KOV, I.I., inzh.

Treatment of the sealing surfaces of high-pressure latches
built-up with "sormait No.1" solid alloy. Energetik 12 no.3:
18-19 Mr '64. (MIRA 17:4)

KOROL'KOV, I.I., inzh.

Angular drilling machine. Energiik 12 no.7:23-24 J1 '64.
(MIRA 17:9)

ABUZOV, Abdrakhman Goneyevich; SOLDATOV, Konstantin Pavlovich;
KOROL'KOV, I.I., red.

[Soviet of master workmen of a plant; practices of master
workmen at the "Elektrosila" Plant] Sovet masterov pred-
priiatia; iz opyta raboty s masterami na zavode "Elektro-
sila" im.S.M.Kirova. Leningrad, 1964. 23 p.
(MIRA 18:1)

KOROL'KOV, I.I., Inzh.

Efficient method for locating defective tubes in water heaters.

Energetik no.9:12-13 3 '64.

(MIRA 17:10)

KOROL'KOV, I.I., doktor tekhn.nauk

Urgent problems in improving the technology of hydrolysis and
alcohol production. Gidroliz. i lesokhim.prom. 17 no.8:4-6 '64.
(MIRA 18:1)

KRESTAN, E.Sh.; KOROL'KOV, I.I.

Investigating the process of sugar separation in case of the use
of a side feeding tube for percolation. Gidroliz. i lesokhim. 18
no.2:6-9 '65. (MIRA 18:5)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut gidroliznoy
i sul'fitno-spirovoy promyshlennosti, Leningrad.

KOROL'KOV, I.I.; LIKHONOS, Ye.F.

Composition of the reducing nonsugars of hydrolyzates. Gidroliz.
i lesokhim. prom. 18 no.3:9-12 '65. (MIRA 18:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrotekhnicheskikh
i sanitarno-tekhnicheskikh rabot.

KOROL'KOV, I.I.; LIKHONOS, Ye.F.; BOBOREKO, E.A.; DRUBLYANETS, E.E.;
KARDASH, F.G.; NORINA, A.Ye.

Industrial testing of the technology of yeast propagation on
inverted hydrolyzates. Gidroliz. i lesokhim. prom. 18 no.5:4-
6 '65. (MIRA 18:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidroliznoy
i sul'fitno-spirovoy promyshlennosti (for Korol'kov, Likhonos,
Boboreko, Drublyanets). 2. Tavdinskiy gidroliznyy zavod (for
Kardash, Norina).

LIKHONOS, Ye.F.; KOROL'KOV, I.I.

Analyzing the inversion of wood hydrolyzates. Gidroliz. i lesokhim.
prom. 18 no.6:3-4 '65. (MIRA 18:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidroliznoy
i sul'fitno-spirovoy promyshlennosti.

KOROL'KOV, I. V.

KITAYTSEV, V.A.; GURVICH, R.M.; KOROL'KOV, I.V.; GINZBURG, D.B., doktor
tekhnicheskikh nauk, professor, ~~rezensent~~; NOKHRATYAN, K.A., kandi-
dat tekhnicheskikh nauk, redaktor

[Heat engineering and heating installations in the building materials
industry] Teplo tekhnika i teplovye ustanovki v promyshlennosti
stroitel'nykh materialov. 3-e izd. perer. i dop. Moskva, Gos. izd-
vo lit-ry po stroitel'nykh materialam, 1954. 495 p. (MIRA 8:4)
(Heat engineering) (Building materials industry)

ACCESSION NR: AP4007915

S/0108/63/018/012/0066/0067

AUTHOR: Korol'kov, I. V.

TITLE: Design and construction of double dielectric coaxial lines

SOURCE: Radiotekhnika, v. 18, no. 12, 1963, 66-67

TOPIC TAGS: coaxial line, double dielectric coaxial line, coaxial feeder, feeder, coaxial transmission line, nonresonant feeder, cannon plug, plug-type connector, feeder connector, dustproof connector, waterproof connector

ABSTRACT: In transmitting large rf power, air-dielectric lines have a heavier cross-section than the r-f cable. A coupler used to connect the two must have the same electric strength as the elements connected by it. For this the space in the coupler must be filled with a solid dielectric. Such a coupler is shown in Enclosure 1. Formulas for the characteristic impedance of and field strength in a two-dielectric line are given, and design requirements ensuring reliability are formulated. Orig. art. has: 2 figures and 6 formulas.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 07Jan64

ENCL: 01

SUB CODE: CO

NO REF SOV: 003

OTHER: 000

~~CONFIDENTIAL~~

L 43024-65 EWT(d)/EWT(1)/EEQ(r)/EED-2/ENA(h)/ENT(1) PG-4/P1-4/PK-4/PO-4/PQ-4/
 Pob IJP(e) GO/BB
 ACCESSION NR: AP5010947 UR/0286/65/000/007/0131/0131

AUTHORS: Yakubovich, A. M.; Korol'kov, I. V.; Braslavskiy, D. A.; Bubnov, I. A.;
Mironov, B. V.

TITLE: Operational amplifier. Class 42, No. 169878

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 7, 1965, 131

TOPIC TAGS: amplifier

ABSTRACT: This Author Certificate presents an operational amplifier with parallel amplification channels and with automatic compensation of zero drift. To increase its reliability and accuracy of operation, it contains no less than three amplification channels operating alternately so that at any instant of time two of them are in the amplification mode. Each channel contains a dc amplifier with operation periodization and with discrete-periodic zero drift compensation by a circuit with a storage capacitor. To decrease the effect of a constant spurious signal with the breakdown of one of the channels, each channel contains a decoupling capacitor connecting the amplifier output of the particular channel through a resistance and a switching unit to the common output of the operational amplifier. The switching unit discharges the decoupling capacitor in the zero drift compensation mode.

Card 1/2

L 12024-65

ACCESSION NR: AP5010947

ASSOCIATION: Organizatsiya gosudarstvennogo komiteta po aviatsionnoy tekhnike
(Organization of the State Committee for Aviation Technology)

SUBMITTED: 08Feb64

ENCL: 00

SUB CODE: EC

NO REF SOV: 000

OTHER: 000

Card 2/2 *pm*

L 07135-67 EWT(d)/FSS-2/EWT(1) TG

ACC NR: AP7001047

SOURCE CODE: UR/0106/66/000/008/0070/0074

KOROL'KOV, I. V.

"Estimation of Parameters of Failure-Free Operation of Nonredundant Radio Electronics Devices"

Moscow, Elektrosvyaz', No 8, 66, pp 70-74

Abstract: Calculation formulas are presented to calculate the probability and mean time of failure-free operation, the frequency and intensity of failures to be expected in nonredundant devices where brief interruptions are permissible during which the device fulfills its functions. The formulas are applicable for calculation of reliability parameters for a duplicated restored system with a cold, nonrestored reserve whose reliability differs from the reliability of the main device. The formulas presented can be used to calculate the probability of failure-free operation with an error of not over 1%.
Orig. art. has: 7 formulas and 2 tables. [JPRS: 38,490]

ORG: none

TOPIC TAGS: circuit reliability, electronic engineering

SUB CODE: 09 / SUBM DATE: 07Sep65 / ORIG REF: 004

Card 1/1

UDC: 621.3.019.34

092400601

02072

S/120/60/000/02/026/052
E041/E421

24,3400

AUTHORS: Korol'kov, I.Ya. and Burgov, N.A.

TITLE: Automatic Equipment for Measuring Spectra with a Magnetic Spectrometer¹

PERIODICAL: Pribery i tekhnika eksperimenta, 1960, Nr 2, pp 99-103 (USSR)

ABSTRACT: Intended for Compton spectrometry, the apparatus does the following: 1 stabilizes the magnetic field within the range 150 to 1480 oersted; 2 automatically maintains a given field for a given time; 3 automatically sets the field in steps of 2.6, 5.2 or 10.4 oersted over the whole range of variation. The block diagram in Fig 1 shows the field pick-off and high-frequency oscillator; the magnet stabilizing loop; the field "sweeping" circuit which provides the independent variable for the spectrum; the interval timer. The field pick-off is a conventional nuclear-magnetic-resonance device and consists of a polystyrene cylinder holding 7 cc of decimolar $MnSO_4$. Five coils are used to cover the range of fields and their details are tabulated on p 99. The width of the absorption line

Card 1/2

S/120/60/000/02/026/052
E041/E421

Automatic Equipment for Measuring Spectra with a Magnetic Spectrometer

is 0.5 oersted. The circuit of the oscillator is in Fig 2; the frequency is varied by a motor-driven tuning capacitor. Fig 3 is the stabilizer circuit and consists of a high-speed loop using Π_{11} and Π_{12} and a low-speed loop using Π_{13} , Π_{14} and Π_{10} , both loops feeding control windings on a EMU-25 electromechanical amplifier. Fig 4 shows the field sweeping circuit ($\Pi_1 - \Pi_{13}$) and the timer (Π_{14} , $\Pi_{16} - \Pi_{21}$). The sweep circuit operates by comparing the output of the high-frequency oscillator with a harmonic from a stable multivibrator and halting the sweep when coincidence occurs. The heart of the timer is a crystal controlled 100 kc/s source. Fig 5 is the circuit of the integrator which measures the rate of counting coincidences. Fig 6 gives an example of a typical result, the gamma-spectrum of Co^{60} . The author thanks G.V.Danilyan, N.V.Lazarev and V.I.Naumkin for assistance. There are 6 figures, 1 table and 6 references, 2 of which are Soviet and 4 English.

SUBMITTED:

Card 2/2

February 12, 1959

S/089/60/009/003/006/014
B006/B063

AUTHORS: Burgov, N. A., Danilyan, G. V., Korol'kov, I. Ya.,
Shterba, F.

TITLE: The Gamma Spectrum¹⁷ of the TBP(TVR) Reactor ¹⁹

PERIODICAL: Atomnaya energiya, 1960, Vol. 9, No. 3, pp. 214-215

TEXT: The authors of the present paper used a gamma spectrometer of the "Elotron"-type to measure the spectrum of gamma rays emerging from a radial hole of the TVR reactor. The geometry of the experiment, which is briefly described in the introduction, is schematically represented in Fig. 1. Fig. 2 shows the entire measured spectrum (resolution of 1.25 per cent for $E_{\gamma} \geq 2$ Mev). The peaks are numbered according to the numbering of the lines in the table. The second column of this table gives the energies of the various lines in Mev, and the values enclosed in brackets indicate the errors of the last places. The third column gives the relative intensities of the lines (accurate to about 10 per cent), and the fourth column gives the various possibilities of their identification. Individual lines were identified from data of Ref. 3. The fourth column further gives the

Card 1/2

The Gamma Spectrum of the TBP(TVR) Reactor

S/089/60/009/003/006/014
B006/B063

elements emitting a certain line. The figures beside the symbols of the elements correspond to the numbering of the lines from Ref. 3. Altogether, 45 lines are considered. Fig. 3 shows the gamma spectrum related to uniform intervals ΔHq , taking in consideration the efficiency of the spectrometer as well as of the absorption of gamma quanta by the neutron filter. Specific features of several lines are briefly discussed, and comparisons are made with the results of other authors. Thus, for example, it was not possible to detect the line described in Ref. 6, which has an energy of 4.062 ± 0.010 Mev and an absolute intensity of 7 per cent (gamma radiation from neutron capture of U^{238}). It might be identical with a line of 4.050 ± 0.015 Mev, which was found by the authors. The last neutron in U^{239} has a binding energy of 4.63 ± 0.15 Mev, which is in good agreement with the gamma line No. 25 (4.640 ± 0.015 Mev). If U^{239} is assumed to be the emitter, the absolute line intensity amounts to 1% per capture. This value agrees with the results of Ref. 6 where this line was not observed. A considerable part of the gamma spectrum of the reactor remains unsolved, obviously due to gamma rays from neutron capture in U^{235} and U^{238} , and from fission events. There are 1 figure, 1 table, and 8 references: 5 Soviet, 2 US, and 1 Canadian.

SUBMITTED: February 24, 1960

Card 2/2

10872

S/048/62/026/009/006/011
B125/B186

2-1.2500
AUTHORS:

Danilyan, G. V., and Korol'kov, I. Ya.

TITLE:

Energy spectrum of the internal conversion pairs arising in the thermal neutron radiative capture in Gd

PERIODICAL:

Akademiya nauk SSSR.. Izvestiya. Seriya fizicheskaya, v. 26, no. 9, 1962, 1164-1168

TEXT: The energy spectrum of the internal conversion pairs was taken with a magnetic spectrometer. The thermal neutron beam ($10^8 \text{ cm}^{-2} \text{ sec}^{-1}$) of the horizontal channel of a heavy-water reactor was made incident on an emitter (aluminum foil with evaporated metallic gadolinium). This measuring apparatus was controlled via the thermal neutron capture γ -radiation in Cl. With increasing energy E_γ the number of internal conversion pairs at first increases rapidly, then more slowly. A distinct peak of coincidences (intensity 0.5 pulses/min) occurs at $E_\gamma = 6.74 \text{ Mev}$. For the coincidences I - III and II - IV this peak was weaker than the background of the random coincidences (0.5 pulses/min.) by at least one

Card 1/2

L 17855-63

EWI(m)/BDS

AFFTC/ASD

S/0048/63/027/007/ 0895/0899

ACCESSION NR: AP3003692

AUTHOR: Pavlov, V.S.; Danilyan, G.V.; Korol'kov, I.Ya.

TITLE: Refinement of the decay scheme for In^{116} /Report of the Thirteenth Annual Conference on Nuclear Spectroscopy held in Kiev from 25 January to 2 February, 1963/

SOURCE: AN SSSR, Izv, Seriya fizicheskaya, v.27, no.7, 1963, 895-899

TOPIC TAGS: isotope activation, nuclear spectrometry, decay schemes, In^{116}

ABSTRACT: The primary purpose of the work was to evaluate the feasibility of using a closed loop activation system for studying the decay of short-lived nuclides by means of a magnetic gamma-spectrometer, in view of the fact that magnetic recoil spectrometers are characterized by high accuracy for obtaining energy and intensity values, but have the drawback of low efficiency, so that in the case of short-lived isotopes several activations are necessary to study the full spectrum. The activation loop consisted of two stainless steel tubes - one used as the source, the other located in the neutron flux near the core of a heavy-water reactor - a centrifugal circulating pump, an expansion chamber and appropriate stainless steel connecting tubing. The loop geometry was such that the irradiation time was about 20 sec; the transit time from irradiation tube to source tube about 8 sec; the full cycle

Card 1/3

L 17855-63

ACCESSION NR: AP3003692

4

time 50 sec. The total volume of the system was about 5 liters. In^{115} was selected for the test experiments; neutron capture by this isotope results in formation of In^{116} in the ground state ($T = 13$ sec) and an isomeric state ($T = 54$ min). The material was circulated in the activation loop in the form of a water solution of $\text{In}(\text{NO}_3)_3$ (150 g per 5 liters water solution). The neutron and gamma background was attenuated by one B_4C and 10 steel blocks with a total length of 1500 mm. The gamma-ray spectrum of In^{116} was measured in the range from 0.7 to 1.8 MeV in 13 keV steps (10 min counting at each field value). The 13-sec activity was distinguished by damping ~~the~~ the reactor for 5 min intervals. The energies and intensities of the detected gamma-rays are tabulated together with the energy values reported by other authors. A refined decay scheme is presented (see Enclosure). "In conclusion we take this opportunity to thank N.A.Burgov for useful discussions and A.I.Zubkov and G.V.Rotter for assistance in the work." Orig.art.has: 1 formula, 4 figures and 1 table.

ASSOCIATION: Institut teoreticheskoy i eksperimental'noy fiziki Goskomiteta po mir-nomu ispol'zovaniyu atomnoy energii SSSR (Inst. of Theoretical & Experimental Physics, State Committee on Peaceful Uses of Atomic Energy, SSSR)

SUBMITTED: CO
SUB CODE: NS, SD
Card 2/3

DATE ACQ: 02Aug63
NO REF SOV: 002

ENCL: 01
OTHER: 007

KOROL'KOV, L.A.

Radioactive level gage. Trudy VNII NG no.2:101-102 '63.
(MERA 17:5)

KOROL'KOV, M.

Incomprehensible indifference. Prom.koop. 14 no.6:34
Je '60. (MDA 13:7)

1. Starshiy inzhener otdela trudovogo ustroystva invalidov
Rospromsoвета.
(Home labor) (Handicapped—~~Employment~~)

BR

S/123/62/000/006/001/018
A004/A101

AUTHORS: Rubanovich, Ya. G.. Korol'kov, M. F.

TITLE: Plastics used in the manufacture of blades of rotors of pneumatic machines

PERIODICAL: Referativnyy zhurnal. Mashinostroyeniye, no. 6, 1962, 22. abstract 6A147 ("Gorn. Mashiny i avtomatika. Nauchno-tekhn. sb.", 1961, no. 3 (20), 127-129)

TEXT: The authors present the results of wear tests of blades of rotors of pneumatic machines manufactured from the following materials: textolite, textolite crumbs, fiber, asbestos-textolite, glass textolite, C 2 AM (SVAM) glass plastic, etc. The machine rotor rotation speed attained 5,000 rpm. Textolite and asbestos-textolite blades were additionally tested at 7,000 - 7,500 rpm. It was found that the wear of the asbestos-textolite blade edges is the least during friction on cast iron stators. At 7,000 - 7,500 rpm the wear of asbestos-textolite blades is by 3.5 times less than that of textolite blades. The cost price of such blades is by 35% lower. ✓

[Abstracter's note: Complete translation]

Card 1/1

RUBANOVICH, Yakov Grigor'yevich; KOROL'KOV, Mikhail Fedorovich;
MEKINULOV, R.D., red.

[Technical and economic bases of the service life of
manufactured articles] Tekhniko-ekonomicheskoe obosnova-
nie srokov sluzhby izdelii. Leningrad, 1964. 25 p.
(MIRA 17:11)

KOROL'KOV, N., polkovnik

On the terrain around Moscow. Starsh.-serezh. no.12:16-18 D '61.
(MIRA 15:3)

(Moscow, Battle of, 1941-1942)

KOROL'KOV, N., polkovnik (Belorusskiy voyennyi okrug)

Sergeants of the first rifle company. Starsh.-serzh. no.3:2-3
Mr '62. (MIRA 15:4)
(Russia—Army—Noncommissioned officers)

KOROL'KOV, N.

Pneumatic bench clamps. Mashinostroitel' no.6:25
Je '60. (MIRA 13:8)
(Pneumatic tools)

22 (1)

AUTHOR:

Korol'kov, N.

SOV/27-59-2-23/30

TITLE:

On a Friendly Visit (S druzheskim vizitom)

PERIODICAL:

Professional'no-tekhnicheskoye obrazovaniye, 1959, Nr 2,
p 32 (USSR)

ABSTRACT:

A group of instructors and master-foremen of the Bobruyskoye uchilishche mekhanizatsii sel'skogo khozyaystva Nr 8 (Bobruysk School of Agricultural Mechanization Nr 8) visited the most advanced schools in the same field in Lithuania and Latvia to exchanging experience. The teachers familiarized themselves with training in the Lithuanian School of Agricultural Mechanization Nr 10 in Rasinyay and the Priyekule School of Agricultural Mechanization Nr 2 in Latvia which is one of the best schools in the country.

Card 1/1

KOROL'KOV, N., polkovnik

Laying the first track. Voen. znan. 41 no.8:12-13 Ag '65. (MIRA 18:7)

KOROL'KOV, N., polkovnik

The tank is a terrible weapon. Voen.znan. 39 no.9:5-6 S '63.
(MIRA 16:10)

KOROL'KOV, N.

Pneumohydraulic machine for broaching holes. Mashinostroitel'
no. 5:22 My '60. (MIRA 14:5)
(Broaching machines)

KOROL'KOV, N., polkovnik

Benefactress of Leningrad. Starsh.-serzh. no.11:34 O[i.e. N] '61.
(MIRA 15:2)
(Leningrad--Siege, 1941-1944)

KOROL'KOV, N.

Training the masters of mechanical milking. Prof.-tekh. obr. 20
no.5:21-22 My '63. (MIRA 16:7)

(Milking--Study and teaching)
(Milking machines)

L 44137-66 EMT(m)

ACC NR: AP6021927 (N) SOURCE CODE: UR/0017/66/000/003/0008/0009

37

36

B

AUTHOR: Korol' kov. N.

ORG: Far Eastern Military District (Dal' nevostochnyy voyennyi okrug)

TITLE: Fast amphibious landing operation

SOURCE: Voyennyye znaniya, no. 3, 1966, 8-9

TOPIC TAGS: amphibious landing, auxiliary ship, armored carrier, military tank, air force training, airborne landing, nuclear weapon, military training /T-101 transport ship

ABSTRACT: The author describes in detail an amphibious landing on a cape jutting out into the Pacific Ocean, which was carried out during military training exercises by soldiers of the Far Eastern Military District. All types of troops took part in this operation, and the commanders reportedly were pleased with the results. The amphibious landing operation was commanded by Lt. Colonel Sergey Rozhkov. No losses were suffered. A reinforced subunit of motorized infantry acted as a naval landing force. Guns, mortars, armored carriers, and tanks were loaded onto ocean-going transports, which then sailed for a point many nautical miles away, where the

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508/4752

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Page 40000

of Parts.

SECRET

Automation and Automation of Production

KOROL'KOV. N.M.

Efficient calculation methods for the straightening of curve .
Put' i put'khoz. 8 no.8:33-35 '64. (MIR' 17:9)

1. Glavnyy inzh. sluzhby puti, g. Tbilisi.

KOROL'KOV, N.M., inzh.

Shore protection installations on the Transcaucasian railroad.
Put' i put. khos. no. 8:28-29 & '58. (MIRA 11:8)
(Transcaucasia--Railroads--Earthwork)
(Shore protection)

KOROL'KOV, N.M., inzh. (Tbilisi)

Efficiency of moderating short-radius curves on mountain
railroads. Zhel.dor.transp. 40 no.11:49-51 N '58.
(MIRA 11:12)

(Railroads--Curves and turnouts)

KOROL'KOV, N.M.

Wear of rails on sharp curves. Put' put.khoz. no.9:22-24
S '59. (MIRA 12:12)

1. Glavnyy inzhener sluzhby puti, g.Tbilisi.
(Transcaucasia--Railroads--Rails)

KOROL'KOV, N.M.

Inclined working of stone quarries. Put' i put.khoz. 4 no.11:31-
32 N '60. (MIRA 13:12)

1. Glavnyy inshener sluzhby puti, g. Tbilisi.
(Quarries and quarrying)

DANDUROV, Mesrop Ivanovich, prof.; KOROL'KOV, Nikolay Mikhaylovich,
inzh.; LIMANOV, Yu.A., prof., retsenzent; STEPANOV, Ya.I.,
inzh., retsenzent; KARAMYSHEV, I.A., inzh., red.; KHITROVA,
N.A., tekhn. red.

[Maintenance and reconstruction of tunnels] Soderzhanie i re-
konstruktsiya tonnei. Moskva, Tranzheldorizdat, 1962.
185 p. (MIRA 15:11)

1. Chlen-korrespondent Akademii stroitel'stva i arkhitektury
SSSR (for Dandurov).

(Tunnels—Repair and reconstruction)

KOROL'KOV, N.M., inzh. (Tbilisi); ADRIANOV, Yu.A., dotsent (Tbilisi);
CHILINGAROV, D.O., inzh. (Tbilisi)

New method of quarrying. Put' i put.khoz. no.7:42-43 '62.
(MIRA 15:7)

1. Vsesoyuznyy zaochnyy institut inzhenerov zheleznodorozhnogo
transporta (for Adrianov).
(Georgia--Quarries and quarrying)

CHIBIZOV, G.A., inzh.; KOROL'KOV, N.M., inzh., retsenzent;
VOROTNIKOVA, L.P., tekhn. red.

[Maintenance of earth dams] Soderzhanie zemlianoogo polotna.
Moskva, Izd-vo "Transport," 1964. 258 p. (MIRA 17:4)

KOROL'KOV, N.M. (TEL'IST); YEZIASHVILI, M.M., sluzhby (TEL'IST)

Guardrails prevent the sidewear of rails. Pat' i put. khoz. 9 no.9:
13-15 '65. (MIRA 18:9)

1. Glavnyy inzh. sluzhby puti, Zakavkazskaya doroga (for Korol'kov).
2. Gruzinskiy politekhnicheskiy institut (for Yeziasvili).

KOROLYOV, N.

Why the attack did not succeed. No 4.

Tankist, No 12, 1948.

FORCING, 1.

Directing the tank fire during attack. No 7.

Tankist, No 12, 1948.

KOROL'KOV, N., gvardii polkovnik.

Armored and mechanized troops of the Soviet Army. Voenn. znan. 29 no.9:8-9
S '53. (MLRA 6:12)
(Tanks (Military science))

KOROL'KOV N.

KORNYUSHIN, P., gvardii polkovnik; KOROL'KOV, N., gvardii polkovnik;
HUDIN, M.Z., podpolkovnik, redaktor; KALACHEV, S.G., tekhnicheskii
redaktor.

[Soviet tank crew members; brief outline of the development
and battle experience of armored and mechanized troops of the
Soviet army] Sovetskie tankisty; kratkii ocherk razvitiia i
boevogo puti bronzetankovykh i mekhanizirovannykh voisk Sovetskoi
Armii. Moskva, Voen. izd-vo Ministerstva oborony SSSR, 1954.
126 p. (MLRA 7:12)

(Russia--Army)(Tanks(Military science))(Mechanization,
Military)